merten

INTELLIGENT SOLUTIONS FOR HOSPITALS

A PRESCRIPTION FOR EFFICIENT BUILDING MANAGEMENT









INTELLIGENT SOLUTIONS FOR HOSPITALS

GET BETTER SOON



Hospitals need to stay at the cutting edge of medicine. For hospital managers, topics such as cost and energy efficiency are becoming increasingly important as well. No matter if the problems diagnosed are to do with lighting, blinds, heating and air conditioning or building management, or if the building in question is being newly built or just modernised – in future, many things can be regulated automatically. Which leaves you with more time to concentrate on what is really important – your patients.

For many years, Merten has been internationally renowned as an independent manufacturer specialising in superior technology, award-winning design and consulting expertise. In addition to a wide variety of switch ranges and innovative products covering all aspects of KNX and security, Merten is also an outstanding provider of complete system solutions. Solutions tailored specifically to the needs and demands of hospitals.

Some examples:

- Innovative, high-performance control technology for seminar and conference areas
- Merten KNX for the control of all building functions
- Complete electrical installation technology, planned right down to the finest detail – from the reception to the ward to the patient's room

And if you have a very special request, we are always happy to adapt our products to your individual needs. After all, Merten's project managers feel right at home wherever their many years of international experience can be put to the most challenging use.











CENTRAL CONTROL OF BUILDING FUNCTIONS

EVERYTHING UNDER CONTROL



Answering telephone calls or questions from visitors and patients – hospital reception staff have to keep on their toes. They also have to keep an eye on central building functions.

The KNX building management system from Merten can, however, take some of the strain.

Control building functions centrally - with the Merten IP Touch-Panel 10"



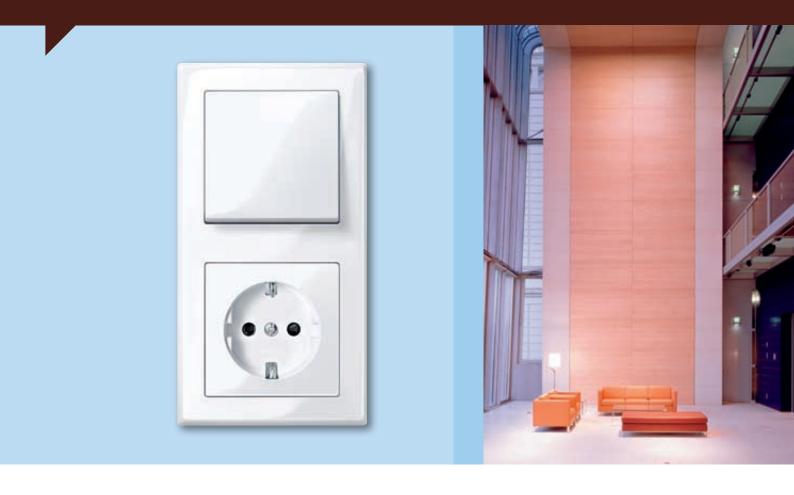
Merten IP Touch-Panel 10", Design M-PLAN real glass

Want to check the occupancy of conference rooms from reception? Or control lighting and blinds from the same place? Perhaps view statuses and readings? Change set values? Or receive a warning signal automatically if the heating breaks down, so that you can react quickly enough to prevent worse damage occuring? All just a straightforward procedure.

KNX connects all the utilities of your hospital to one another using an intelligent bus line. In this way, information can be exchanged for all building functions. For example, using the Merten IP Touch-Panel 10". It lets you control a whole range of building functions from a central location – conveniently, safely and efficiently.

Example of energy management in the corridor: switch and dim groups of luminaires and regulate the air conditioning/ ventilation as required e.g. with the IP touch panel 10". In connection with Merten presence detectors, the lighting can be switched dependent on movement and brightness. Energy costs can thus be conveniently saved.

M-SMART ACTIVE WHITE OPTIMUM CLEANLINESS FOR PUBLIC BUILDINGS



PUBLIC BUILDINGS IN PARTICULAR CAN EXPECT A HIGH NUMBER OF VISITORS. THE RISK OF BACTERIAL TRANSMISSION IS THEREFORE INCREASED.

It was therefore our aim to develop a self-disinfecting switch surface which would provide long-term and reliable protection against germs and bacteria, and which would therefore help halt the transmission of disease.

To this end, high-quality, impact-resistant thermoplastic silver ions were added to the switch material. These guarantee an anti-viral and anti-bacterial effect, and completely remove harmful bacteria within 24 hours. Unlike antibiotics or disinfectants, silver ions are able to prevent the development of resistant microorganisms. This natural process therefore has no negative effects on either humans or the environment. This natural anti-bacterial effect remains fully effective throughout the useful life of the switch. This is a very important feature of our switch range, since it is used for many years, and even decades.

M-SMART ACTIVE WHITE CLEANER, CLEVERER SWITCHING

The new System M switch range in the M-SMART ACTIVE WHITE design from Merten now offers long-term protection from germs and bacteria.

The colour "active white" is also new. Similar to RAL 9016, the active white colour is a fresh alternative to the existing white tones. The glossy plastic surface can be easily wiped free of dirt.



Actual size

AREAS OF APPLICATION

System M in the M-SMART ACTIVE WHITE design is particularly suitable for B2B comprehensive solutions. And especially for:

- Restaurants
- Office buildings
- Catering kitchens
- Hotels
- Retirement homes
- Public institutions
- Airports/train stations
- Schools
- Hospitals

SYSTEM M ACTIVE WHITE – ALL THE ADVANTAGES AT A GLANCE:

- An environmentally friendly solution, thanks to the use of non-hazardous materials
- Long-lasting protection and increased security against bacteria
- A sustainable solution thanks to its long-term effectiveness
- Scientifically proven to be highly effective
- · Glossy surface makes it easy to clean
- With over 210 functions, System M from Merten offers a convincing solution for all applications
- The benefits to you: a high-level longterm effect for a low investment

SOLUTIONS FOR CORRIDORS AND STAIRCASES

THE RIGHT DOSE EVERY TIME

Examples chosen to reflect actual scenarios show you how Merten's intelligent technology helps you adapt lighting to suit

your own particular requirements – thus helping you to save energy and increase security as well.

A switchboard in the nurse's station – the PLANTEC multi-function push-button



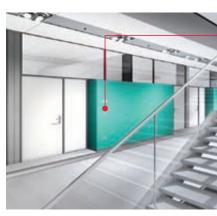


PLANTEC control and display unit

The nurse's station is a main point of contact for patients and visitors alike - and is also a central control station for the building functions of the entire ward. Merten helps nurses control these at the touch of a button. During the daytime, for example, the blinds in all the rooms can be raised or lowered

conveniently from a central position. Or at night the entire corridor lighting can be switched on in an emergency. This is the kind of security and convenience so essential for hospitals today.

Use movement to control lighting - with ARGUS indoor movement detectors





ARGUS indoor movement detector, M-PLAN, polar white



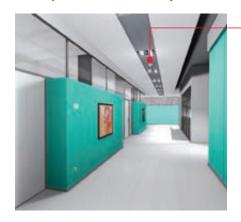
ARGUS indoor movement detector, AQUADESIGN, polar white

In a hospital, easy orientation is particularly important in the evening and at night. And even more particularly in siderooms which are rarely used. So that no-one is left fumbling about for the light switch in the dark, Merten's indoor movement detectors switch the lighting on automatically. Convenient, and energy-efficient.

If ARGUS indoor movement detectors are to be used in damp rooms, in cellars or outside, the waterproof ARGUS 180 FLUSH-MOUNTED AQUADESIGN is on hand.



Save up to 30% on electricity with Merten presence detectors





ARGUS presence detector

With Merten presence detectors to control your lighting based on movement and levels of daylight, you can save up to 30% on your electricity costs. The light is dimmed up only when the presence detectors installed in the corridors detect that someone is there, and, if desired, the light can be dimmed back down again when they leave again. In this way, even long corridors in wards can be completely monitored and their lighting intelligently controlled. Finally, an end to wasting energy in halls and corridors!

Another advantage of the Merten KNX presence detector: it easily fulfils the requirements of DIN EN 12464, providing 200 lx during the day and 50 lx at night. You will never be left in the dark! This is particularly practical and convenient when care staff have their hands full with trolleys or wheelchairs.

Find your way - with Merten orientation signs and LED light signals







Orientation sign, M-PLAN, polar white

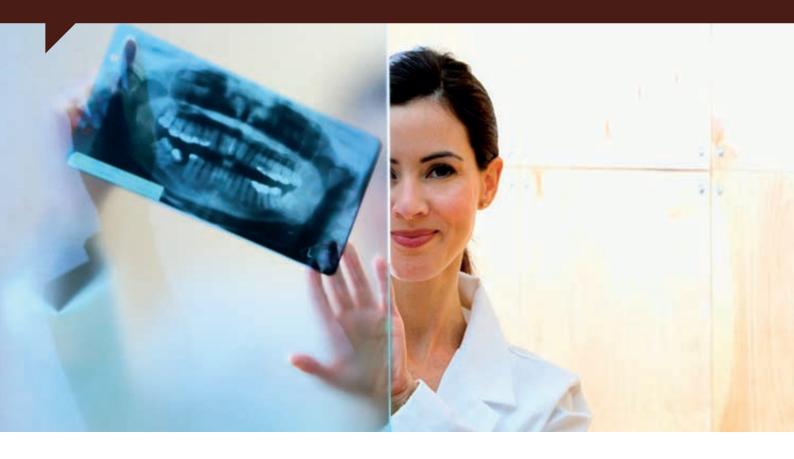
LED light signal, M-PLAN, polar white

Patients and visitors are in an unfamiliar environment when in hospital. That makes it all the more important to give them the best possible information from the start. Which way to the lift? Which way to the nurse's station? Merten orientation

signs and LED light signals can answer these questions clearly and visually. They don't just look good, they also cannot be overlooked thanks to the backlit display window.

SOLUTIONS FOR DIAGNOSTIC ROOMS

SAFETY FIRST



Diagnostic rooms are the epicentre of every hospital. Packed with highly sensitive devices, a false move could spell danger. Merten is there to help.

Err on the side of safety - with Merten socket-outlets for special circuits





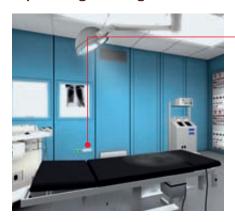
SCHUKO® socket-outlet insert for special circuits, polar white/green

Essential for the life-saving devices found in treatment rooms: protection against power failure. And this is precisely what the special Merten socket-outlets for special circuits provide.

Due to their colouring, they can be unmistakably identified as socket-outlets for the backup power supply.



A quick assignment is guaranteed - thanks to labelled socket-outlets from Merten



And because in emergencies time is of the essence, the socket-outlets and switches of medical devices should be labelled clearly and unambiguously. Merten offers a wide



Socket-outlet, M-PLAN, polar white, labelled

range of solutions which, in conjunction with frames with a labelling option, guarantee consistent and comprehensive labelling.

Control lighting as needed - with multi-function push-buttons from Merten



The right diagnosis is not just down to perfectly functioning medical technology. Lighting which can adapt to different types of examination is important as well. Merten's intelligent technology provides the best conditions. The clinical staff or the doctor can, for example, switch off all devices which are



Push-button, 2-gang plus, M-PLAN, polar white

not required for magnetic resonance tomography (MRT) with a single push-button in order to avoid electrical interference and related errors. At the same time the lighting can also be adapted to the examination requirements in the room.

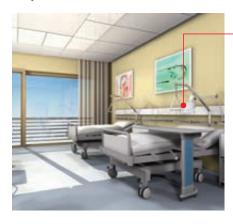
SOLUTIONS FOR THE PATIENT'S ROOM FEEL SAFE AND SECURE



At every hospital the doctors and nursing staff try to make the patient's stay as pleasant as possible – and to be there right away when the patient needs something, or in emergencies.

Here as well, Merten has a host of solutions on offer to help the patient feel as comfortable as possible.

Help on call - with the Merten nurse call system



Many patients are reassured to know that they can reach the nursing staff from their hospital bed as and when they need them. Merten also offers covers for these which fit in perfectly with the design of the switch range. It does not matter which



Nurse call system, M-SMART, active white

reputable manufacturer has provided the call system. One quick push of a button is all it takes to call for assistance.



Safety in the bathroom - thanks to the Merten pull-cord switch



If the worst happens and your patients need to call for help from the patient bathroom, they can trigger an emergency call via the Merten pull-cord switch.

The right temperature - automatically or via push-button



The right ambient temperature is an important factor in making patients feel comfortable. Particularly on hot summer days. Intelligent building system technology from Merten ensures that the blinds come down automatically in the case of long-lasting direct sunlight, meaning your patients are not caught



Multi-function push-button with room temperature control unit, M-SMART, active white

by the glare. Of course, the blinds can also be operated manually at any time.

And to make sure that the temperature is just right at night, the heating in all patient rooms is automatically reduced to a pleasant level.

SOLUTIONS FOR CONFERENCE ROOMS

PRESENTATION-READY AT THE TOUCH OF A BUTTON



Between information evenings and conventions there are a lot of occasions on which hospitals need to have modern conference technology on hand. And this technology comes from Merten. It allows the speakers to fully concentrate on what they have to say without having to worry about technical details beforehand.



Perfectly presented - with the PLANTEC multi-function control unit



Projector screen and blinds are lowered, the projector is switched on, the air conditioning is activated and the lighting is dimmed – and all it took was the touch of a button. With the PLANTEC multi-functional control unit, you are ready for your



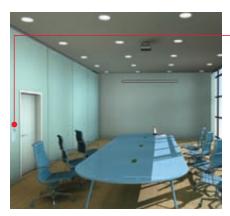
PLANTEC control and display unit



PLANTEC multi-function push-button with room temperature control unit

presentation in the blink of an eye. It goes almost without saying that all these functions can be activated individually as well, via push-button or display.

Not only good for conference presentations - the multi-function push-button with room temperature control unit



When it comes to controlling light, lightscenes, blinds and heating, you don't need to limit the benefits of Merten multifunction push-buttons to conference rooms. The integrated room temperature control unit allows any room to be individually and conveniently heated or cooled as needed. And also with precision, thanks to a time control function.



Multi-function push-button with room temperature control unit, 4-gang, ARTEC, polar white



Multi-function push-button with room temperature control unit, 2-gang, ARTEC, aluminium

All display functions can be controlled simply and conveniently using the flip-up display cover. The multi-function push-button with room temperature control unit is also available with an integrated IR receiver for convenient control via remote control, and piezoelectric buzzers to report faults and malfunctions.

FROM FUNCTIONAL TO FABULOUS

Classic, modern, exclusive - whatever you need, for wherever you need it, whether indoors, outdoors, or in damp rooms.

Merten switch designs have something to offer everyone.

And if you want to change the design of your switches –

because the building has been redecorated, for example – there's no problem matching the new frames and rockers with the existing flush-mounted inserts.



PRODUCT RANGES WITH DEPTH

THE A TO Z OF POSSIBILITIES



At reception, in corridors, in conference rooms, in patient rooms. To control blinds, or to connect telephones and computers. Merten switch ranges have a lot to offer. M-SMART is presented here as just one example of the wide variety of

tasks and functions that our switch ranges are able to take on. And if you have a very special request, we are always happy to adapt our products to your individual needs.

M-SMART AS AN EXAMPLE OF THE SWITCH DESIGN RANGE (APPROXIMATELY 210 DIFFERENT FUNCTIONS AVAILABLE) 3= 5 00 EXIT

REFERENCES

HIGHLY RECOMMENDED



From Germany to Holland to Austria, intelligent Merten building system technology has proved itself in the day-to-day running of many hospitals and retirement homes.

Our references:

- "De Groen Brug" Foundation Nursing Centre, Almelo, Netherlands
- Hartberg Hospital, Austria
- Kiel City Hospital, Germany
- Bremen Central Hospital, Germany
- Segeberger Clinics, Germany
- Brandenburg Hospital, Germany

- Suhl Hospital, Germany
- Pinneberg Hospital, Germany
- Südstadt Rostock Children's Hospital, Germany
- Hedwigshöhe Hospital, Berlin, Germany
- Emden Home for the Disabled, Germany
- Dinklage Nursing Home, Germany

VISITING TIME AT THE INTELLIGENT HOSPITAL

We are sure you have gained a first impression of the possibilities that Merten's innovative building system technology has to offer. You can get a second – multimedia – impression from the Merten CD-ROM. With more examples of how the technology can be used in the day-to-day business of a hospital, you can find out more about Merten's switch ranges as well as all you need to know about KNX.

Pay a visit to the virtual Merten hospital and discover how your hospital can also become more efficient, more comfortable and more secure with Merten's intelligent building system technology. Our internationally experienced project leaders are available to give you more information or to arrange a personal consultation.



Free: You can either order the Merten CD at www.mymerten.com or access it directly under the same link.









Clear, practical and informative - the Merten multimedia CD-ROM, with examples reflecting day-to-day life in a hospital,

shows you all you need to know about KNX and features an interactive product guide and much more.

SOLUTIONS FOR INTELLIGENT BUILDINGS

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Merten GmbH & Co. KG

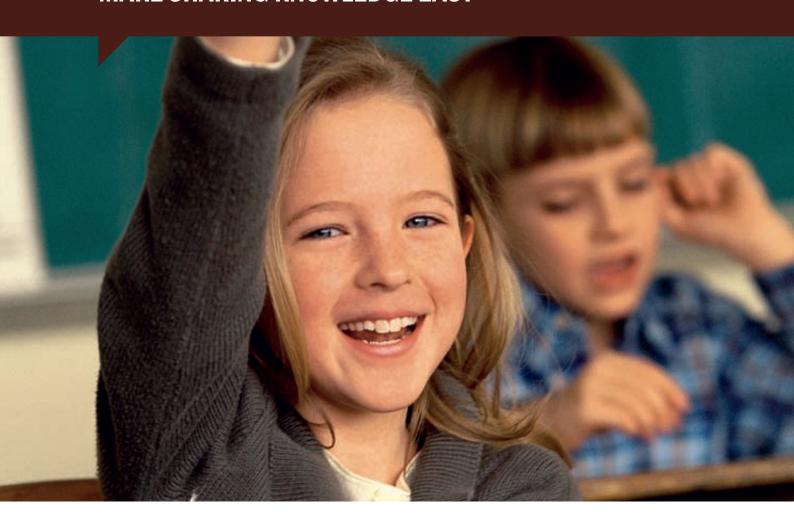
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INTELLIGENT SOLUTIONS FOR SCHOOLS

MAKE SHARING KNOWLEDGE EASY









INTELLIGENT MERTEN SOLUTIONS TOP MARKS FOR TECHNOLOGY AND DESIGN





Whether it be lighting, blinds, heating/ventilation or building management. Whether in a new construction or as part of renovation work – running a school building requires careful planning and investment, but that's not all – energy efficiency is enormously important as well. This is where Merten comes in: so that in future, you can regulate systems automatically, and cut long-term costs.

For many years, Merten has been internationally renowned as a manufacturer specialising in superior technology, award-winning design and consulting expertise. In addition to a wide variety of switch ranges and innovative products covering all aspects of KNX and security, Merten is also an outstanding provider of complete system solutions. Solutions tailored specifically to the needs and demands of schools.

Some examples:

- Energy-saving product solutions for the classroom
- Innovative, high-performance control technology for the school hall
- Merten KNX for the control of all building functions
- Complete, well-thought out electrical installation systems for corridors, classrooms and gyms

And if you have any special requests on the curriculum, we are always happy to adapt our products to your individual needs. After all, Merten's project managers feel right at home wherever their many years of international experience can be put to the most challenging use.









SOLUTIONS FOR CLASSROOMS AND CORRIDORS

A SHINING EXAMPLE OF EFFICIENCY

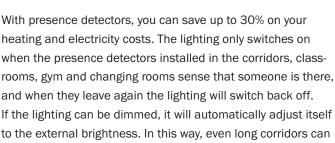


The typical school day sees many requirements having to be met with regard to lighting, blinds, heating, air-conditioning and ventilation, particularly in corridors and classrooms.

Merten's intelligent technology not only allows you to flexibly adjust these building functions to your individual requirements it can also have a positive influence on your energy bills.

Save up to 30% on heating and electricity costs with Merten presence detectors





be monitored without interruption, and their lighting can be

intelligently controlled. You can manually switch the lighting

on and off at any time using a push-button.

Merten presence detector

classrooms.

Heating systems can also be integrated, e.g. with automatic night economy. With these simple tools you can put a stop to unnecessary energy consumption in corridors, stairways and

These elegantly designed presence detectors can also increase safety and security first thing in the morning and last thing at night: If they detect movement, an alarm signal will be sent to a designated person, for example the caretaker.



Ideal lighting conditions, all the time - with Merten blind control



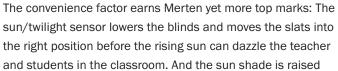


Merten sun/twilight sensor



Key switch for roller shutters, M-SMART, polar white







Merten wind sensor

automatically if there happens to be a strong wind. The blinds can of course also be operated manually whenever preferred, with the Merten key switch.



SOLUTIONS FOR CORRIDORS AND GYMS PERFECT PROTECTION

Hard to beat - Impact-resistant ANTI-VANDALISM SCHUKO® socket-outlet, flush-mounted







ANTI-VANDALISM

Impact-resistant SCHUKO® socket-outlet, flush-mounted

Some situations, especially in corridors or in the gym, are just too much for normal school electrical installations. This is where Merten's special solutions come to the rescue. If in the heat of competition the gym light switch gets hit more than the back of the net, or if herds of students sometimes treat corridors and outside areas to a stampede – ANTI-VANDALISM

switches, socket-outlets and impact-resistant flush-mounted socket-outlets are the right solution. This ANTI-VANDALISM range of switches specially designed for the rough and tumble of the school day can withstand blows, kicks, tools and even flames.

Water off a duck's back - AQUADESIGN



6



AQUADESIGN, polar white

AQUADESIGN is ideal wherever switches are exposed to damp, moisture, wind and rain, such as in changing rooms and

shower areas, basements, swimming pools or outdoor areas. The AQUADESIGN range has high-level splash protection to IP 44.

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Fit for sport at the push of a button - with PLANTEC





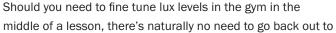
PLANTEC control and display unit

From now on you can prepare for your sport lesson in total comfort: without leaving your changing room. While your students are getting ready, all you need to do is press a button to create perfect sporting conditions. If basketball is on the timetable, for example, the light switches to 200 lux, the ideal level for school sports, all partition walls are raised and the

ventilation system prepares a pleasant temperature. Whether you prefer to set up the gym to your requirements with a single button, or to activate each function individually – Merten's convenient control unit is as simple as: on your marks, get set, go!

Safe and tough - the ANTI-VANDALISM key switch







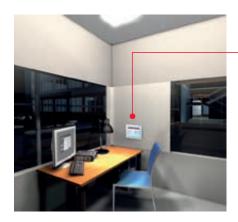
ANTI-VANDALISM key switch

the changing room. Just use the sturdy ANTI-VANDALISM key switch, that can be installed right there in the gym.



SOLUTIONS FOR THE SCHOOL HALL TOP-OF-THE-CLASS ORGANISATION

Reveal all with one click - the Merten IP Touch-Panel 10"



Whether courses, visiting days for parents or festivals – there is always some kind of event on in the evening at schools. Intelligent technology from Merten lets you anticipate all these with tranquillity: Time-controlled heating creates a pleasant temperature in the required rooms in plenty of time.



Merten IP Touch-Panel 10", Design M-PLAN real glass

The relevant corridors and classrooms can be switched conveniently to maintained light so that course participants, parents or guests can find their way to the classrooms safely: all controlled centrally and conveniently with the Merten IP Touch-Panel 10".

Showing the way - the Merten LED light signal



Toilets, emergency exits and stairwells all have to be clearly indicated at all times. Orientation within school buildings is child's play with Merten's illuminated LED light signals.



Merten LED light signal, M-SMART, polar white

They guarantee optimal illumination and ensure that the signs can be easily seen both day and night.



Ready for presentation at the touch of a button – with PLANTEC



PLANTEC control and display unit



PLANTEC multi-function push-button with room temperature control unit

Whenever there are speeches in the school hall, speakers should ideally be able to concentrate beforehand on what they are going to say, instead of on the equipment.

With PLANTEC, one touch is enough to lower the blinds, unroll the screen, switch on the projector, activate the air conditioning, and finally to dim the lights.

The Merten multi-function push-button with room temperature control unit – more than perfect event presentation



With the Merten multi-function push-button with room temperature control unit, the school hall and any other room can be individually and conveniently heated or cooled as needed. And also with precision, thanks to a time control function. All display functions can be controlled simply and conveniently

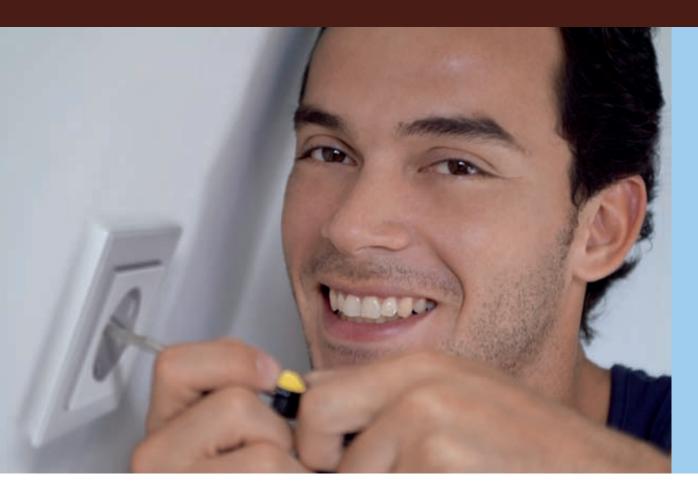


ARTEC KNX multi-function push-button, 4-gang with room temperature control unit, aluminium

using the flip-up display cover. The multi-function push-button with room temperature control unit comes with an integrated IR receiver for convenient control via remote control and piezoelectric buzzers to report faults and malfunctions.

SOLUTIONS FOR EFFICIENT FACILITY MANAGEMENT

IN GOOD HANDS



Keep everything under control - with the Merten IP Touch-Panel 10"



One person who always has everything under control: the caretaker. But at the intelligent school this needs no more tours of inspection. The caretaker can just look at the Merten IP Touch-Panel 10" to see where windows or doors are still open. And, at night, they will reveal if the school has any unwanted visitors. Or that lights and heaters are still switched on. If there is a heating malfunction, the caretaker can be notified immediately.



Merten IP Touch-Panel 10", Design M-PLAN real glass

The technology that makes all this possible: the Merten KNX building management system. KNX connects up all your school's utilities using an intelligent bus line. In this way, information can be exchanged for all building functions. The advantage is that you can control a multitude of building functions conveniently, safely and efficiently.

MERTEN PRODUCT DIVERSITY

A DAZZLING ARRAY OF FUNCTIONS

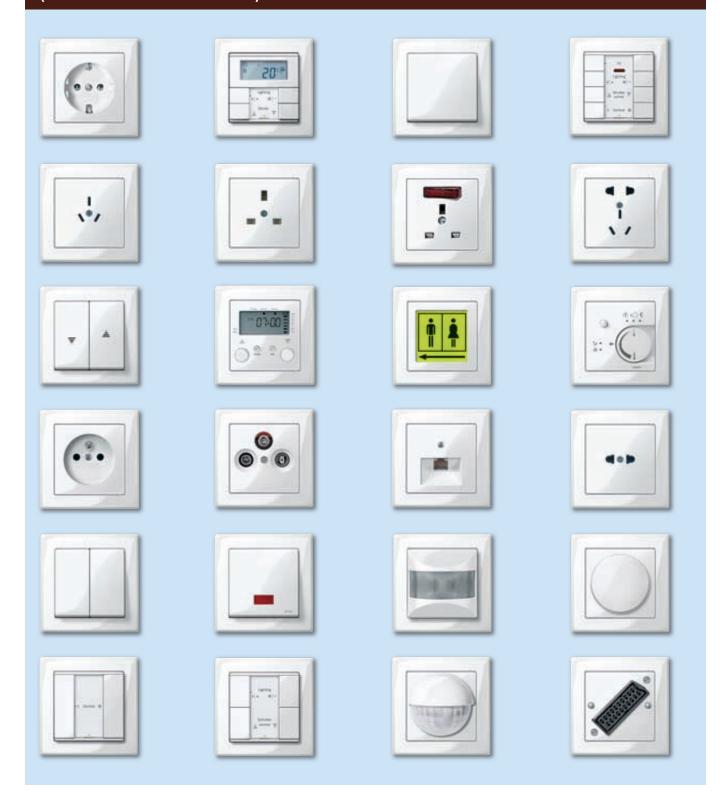


For corridors, classrooms, the gym, swimming pool or school hall. To control blinds, or to connect telephones and computers. Merten switch ranges have a lot to offer. M-SMART is presented here as just one example of the wide variety of

tasks and functions that our switch ranges can take on.

Special requests? We would be happy to customise our products to your individual needs.

A SELECTION FROM OUR VARIED RANGE OF SWITCH DESIGNS – THE M-SMART EXAMPLE (AROUND 210 FUNCTIONS AVAILABLE)



SWITCH RANGES

AS INDIVIDUAL AS EACH STUDENT

Whatever architectural style characterises your school, Merten switch ranges have a variety of designs to suit. Classic or modern. For indoors, outdoors, or in rooms subject to moisture. To ensure your electrical installations have a uniform appearance, all our switch ranges cover a large spectrum of

individual appliances and functions. Best of all: if you want to change the design of your switches – because the building has been redecorated, for example – there's no problem matching the new frames and rockers with the existing flushmounted inserts.









Other attractive colour combinations are possible.

REFERENCES

MERTEN - THE TEACHER'S FAVOURITE



From Germany to Belgium to China, Merten's intelligent building system technology has long passed the test of day-to-day operation in schools.

OUR REFERENCES:

- Academy of Music, Berlin, Germany
- University of Hamburg, Germany
- · Ahlhorn Grammar School, Germany
- Buxtehude Vocational Training Centre, Germany
- · Haus des Lehrers, Berlin, Germany
- Sebastopol School Centre, Osnabrück, Germany
- IUB Campus Centre, Bremen, Germany

- Unicom II, Bremen, Germany
- Media Docks, Lübeck, Germany
- Hohen Neuendorf Primary School, Germany
- Sixth Form Centre 2, Hennigsdorf, Germany
- Templin Grammar School, Germany
- Michendorf Grammar School, Germany
- Uli Schwarz Institute, Shanghai, China
- UFSIA University, Antwerp, Belgium
- Faculté Polytechnique, Mons, Belgium

MERTEN FREE CD

A DAY IN THE LIFE OF THE INTELLIGENT MERTEN SCHOOL

We are sure you have gained a first impression of the possibilities that Merten's innovative building system technology has to offer. You can get a second – multimedia – impression from the free Merten multimedia CD-ROM. With more examples of how the technology can be used in day-to-day school life, as well as detailed information on Merten's switch ranges and on KNX.

Visit the virtual Merten school and discover how your school too can become more efficient, more comfortable and more secure with Merten's intelligent building system technology.

Our internationally experienced project leaders are available to give you more information or to arrange a personal consultation.



Free: You can either order the Merten CD at www.mymerten.com or access it directly under the same link.









Clear, practical and informative - the Merten multimedia CD-ROM, with examples reflecting day-to-day school life,

shows you all you need to know about KNX, and features an interactive product guide and much more.

SOLUTIONS FOR INTELLIGENT BUILDINGS

merten

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